**APPENDIX A.** Search details 27th of August 2020

**Pubmed Database Search Query:**

➔ **2010 to 2020 (n=211):**

*(Artificial intelligence[MeSH] OR Computational Intelligence\*[tiab] OR Machine Intelligence\*[tiab] OR Computer Reasoning[tiab] OR AI[tiab] OR Computer Vision System\*[tiab])*

*AND*

*(Operating rooms[MeSH] OR Operating room\*[tiab] OR operating theater\*[tiab] OR operating suite\*[tiab] OR operation suite\*[tiab] OR operating theatre\*[tiab])*

*AND*

*(General surgery[MeSH] OR Surgery[tiab] OR operation\*[tiab] OR surgical procedure\*[tiab] OR operative therap\*[tiab] OR operative procedure\*[tiab] OR peroperative procedure\*[tiab] OR perioperative procedure\*[tiab] OR preoperative procedure\*[tiab] OR intraoperative procedure\*[tiab])*

| History and Search Details | | | | ⬇ Download | 🗑 Delete |
|---|---|---|---|---|---|
| **Search** | **Actions** | **Details** | **Query** | **Results** | **Time** |
| #3 | ⋯ | > | Search: **(Artificial intelligence[MeSH] OR Computational Intelligence\*[tiab] OR Machine Intelligence\*[tiab] OR Computer Reasoning[tiab] OR AI[tiab] OR Computer Vision System\*[tiab]) AND (Operating rooms[MeSH] OR Operating room\*[tiab] OR operating theater\*[tiab] OR operating suite\*[tiab] OR operation suite\*[tiab] OR operating theatre\*[tiab]) AND (General surgery[MeSH] OR Surgery[tiab] OR operation\*[tiab] OR surgical procedure\*[tiab] OR operative therap\*[tiab] OR operative procedure\*[tiab] OR peroperative procedure\*[tiab] OR perioperative procedure\*[tiab] OR preoperative procedure\*[tiab] OR intraoperative procedure\*[tiab]) Filters: from 2010 - 2020** Sort by: **Most Recent** | 211 | 11:20:34 |

**Embase Database Search History:**

➔ **2010 to 2020 (n=57):**

*(Artificial intelligence OR Computational Intelligence\* OR Machine Intelligence\* OR Computer Reasoning OR AI or Computer Vision System\*)*

*AND*

*(Operating room\* or operating theater\* or operating suite\*)*

*AND*

*(General surgery OR Surgery or operation\* OR surgical procedure\* OR operative therap\* OR peroperative procedure OR perioperative procedure OR preoperative procedure\* OR intraoperative procedure\*)*

| # ▲ | Searches | Results | Type | Actions | Annotations |
|---|---|---|---|---|---|
| 1 | ((Artificial intelligence or Computational Intelligence* or Machine Intelligence* or Computer Reasoning or AI or Computer Vision System*) and (Operating room* or operating theater* or operating suite*) and (General surgery or Surgery or operation* or surgical procedure* or operative therap* or peroperative procedure or perioperative procedure or preoperative procedure* or intraoperative procedure*)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word] | 73 | Advanced | Display Results More ▾ | 💬 |
| 2 | limit 1 to yr="2010 -Current" | 57 | Advanced | Display Results More ▾ | 💬 |

Save  Remove  Combine with:  AND  OR

**Cochrane Library Search Query:**

➔ **2010 to 2020 (n=5):**

*(Artificial intelligence OR Computational Intelligence* OR Machine Intelligence* OR Computer Reasoning OR AI or Computer Vision System*)*

*AND*

*(Operating room* or operating theater* or operating suite*)*

*AND*

*(General surgery OR Surgery or operation* OR surgical procedure* OR operative therap* OR peroperative procedure OR perioperative procedure OR preoperative procedure* OR intraoperative procedure*)*

**5** Cochrane Reviews matching **(Artificial intelligence OR Computational Intelligence* OR Machine Intelligence* OR Computer Reasoning OR AI or Computer Vision System*) AND (Operating room* or operating theater* or operating suite*) AND (General surgery OR Surgery or operation* OR surgical procedure* OR operative therap* OR peroperative procedure OR perioperative procedure OR preoperative procedure* OR intraoperative procedure*) in Title Abstract Keyword - with Cochrane Library publication date Between Jan 2010 and Jul 2020 (Word variations have been searched)**

Did you mean: *orificial* | *artificialise* | *artificiality*

**Cochrane Database of Systematic Reviews**
Issue 8 of 12, August 2020

**IEEE Xplore database Search Query:**

➔ **2010 to 2020 (n=27):**
*((("All Metadata":artificial intelligence) AND "All Metadata":surgery) AND "All Metadata":operating room)*

**APPENDIX B.** Critical appraisal checklist

General checklist for systematic reviews:

➔ Accessible at:

| General systematic review (SR) quality criteria | Yes | No | Can't tell |
|---|---|---|---|
| Does the SR explicitly report and perform a comprehensive and reproducible literature search? | | | |
| Does the SR formulate a clearly focused question? | | | |
| Does the SR's methods section explicitly state the basis for inclusion or exclusion of primary RCTs? | | | |
| Does the SR report data from primary RCTs (e.g., size, interventions used, results from individual RCTs) | | | |
| Does the SR assess the methodological quality of primary studies, and take these into account where necessary? | | | |
| Meta-analysis: does the SR combine primary studies appropriately? | | | |
| Meta-analysis: does the SR state how results are combined statistically? | | | |
| Meta-analysis: does the SR report absolute numbers as well as appropriate summary statistics? | | | |
| Does the SR discuss the reasons for any variations/heterogeneity between individual RCTs/overall results? | | | |
| Does the SR report on the clinical relevance/importance of the results? | | | |